

**BUFFER MANAGEMENT ARCHITECTURE****ABSTRACT OF THE DISCLOSURE**

[0038] A network switch may include a buffer management module to manage buffers in a buffer memory. The buffer management module may include an Allocation SRAM and a Reclaim SRAM. Each buffer in the buffer memory may be associated with a corresponding bit in the Allocation SRAM and Reclaim SRAM. A line including bits indicating available buffers in the Allocation SRAM may be written to the allocation register, and the buffer management module may allocate buffers from the allocation register. A reclaim module may age bits in the Reclaim SRAM. The reclaim module may reclaim buffers by searching corresponding lines in the Allocation SRAM and Reclaim SRAM and comparing the values of bits in the two lines.